



Monticello Nuclear Generating Plant
2807 W County Road 75
Monticello, MN 55362

March 30, 2011

L-MT-11-024
10 CFR 50.73

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Monticello Nuclear Generating Plant
Docket No. 50-263
Renewed Facility Operating License No. DPR-22

LER 2011-003, Secondary Containment Damper Icing

The Licensee Event Report (LER) for this occurrence is attached.

Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.

A handwritten signature in black ink, appearing to read 'Timothy J. O'Connor', written over a large, light-colored scribble or stamp.

Timothy J. O'Connor
Site Vice President, Monticello Nuclear Generating Plant
Northern States Power - Minnesota

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, Monticello, USNRC
Resident Inspector, Monticello, USNRC

LICENSEE EVENT REPORT (LER)
(See reverse for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0066), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME Monticello Nuclear Generating Plant	2. DOCKET NUMBER 05000 263	3. PAGE 1 OF 3
--	--------------------------------------	--------------------------

4. TITLE
Secondary Containment Damper Icing

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
02	11	2011	2011	003	- 00	03	30	2011	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)			
10. POWER LEVEL 100%	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER
<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A	

12. LICENSEE CONTACT FOR THIS LER

NAME Steven K. Speight	TELEPHONE NUMBER (Include Area Code) 763.271.7636
---------------------------	--

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
-------	--------	-----------	---------------	--------------------	-------	--------	-----------	---------------	--------------------

14. SUPPLEMENTAL REPORT EXPECTED				15. EXPECTED SUBMISSION DATE		
<input type="radio"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE). <input checked="" type="radio"/> NO				MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On February 11, 2011, at 0327 hours, Secondary Containment isolation damper V-D-61 (Reactor Building Outboard Isolation Damper) was discovered frozen closed due to ice buildup, with the actuator broken. The inboard damper, V-D-62, was found blocked partially open, again due to icing. A Secondary Containment (SCT) penetration flow path with two isolation valves inoperable condition existed, and Limiting Condition for Operation (LCO) 3.6.4.2 was declared not met. Technical Specification Condition 3.6.4.2.B was entered for one or more penetration flow paths with two isolation valves inoperable. The ice was removed and V-D-62 was verified closed at about 0354 hours, isolating the affected penetration flow path by use of at least one closed and de-activated automatic valve and satisfying the required action of Condition 3.6.4.2.B. Repairs were completed, the system retested, and LCO 3.6.4.2 was met by about 2001 hours on February 11, 2011. On March 11, 2011, with SCT not required, the site tested V-D-61 with the actuator disconnected (event condition), Reactor Building 1027 Supply Fan V-AH-4A operating, and without ice on the damper. The test demonstrated that the damper would not open under these conditions, thereby validating that the safety function of the damper was maintained throughout the event.

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

1. FACILITY NAME	2. DOCKET NUMBER	6. LER NUMBER			3. PAGE
Monticello Nuclear Generating Plant	05000 263	YEAR	SEQUENTIAL NUMBER	REV NO.	2 OF 3
		2011	- 003	- 00	

EVENT DESCRIPTION

Operations started Reactor Building (NG) 1027 Supply Fan V-AH-4A (FAN), on February 11, 2011, at 0120 hours. Secondary Containment (SCT) differential pressure became more negative. Operators adjusted Reactor Building exhaust fan flow to compensate. Operations then identified that V-AH-4A did not have adequate flow. V-AH-4A was secured and Reactor Building 1027 Supply Fan V-AH-4B was started, restoring normal differential pressure.

V-D-61 (Reactor Building Outboard Isolation Damper) (DMP) was discovered frozen by ice in the closed position, with its actuator shaft bent and the linkage between the shaft and crank arm disconnected. The corresponding inboard damper, V-D-62 (DMP), was found blocked partially open, again due to icing. Investigation revealed that moisture released from a recently repaired steam leak on the V-AH-4A preheat steam coil condensed and, combined with low temperatures, resulted in the dampers freezing.

Since a SCT penetration flow path with two isolation valves inoperable condition existed, Limiting Condition for Operation (LCO) 3.6.4.2 was declared not met. Technical Specification Condition 3.6.4.2.B was entered for one or more penetration flow paths with two isolation valves inoperable.

The ice was removed and V-D-62 was verified closed at about 0354 hours, isolating the affected penetration flow path by use of at least one closed and de-activated automatic valve and satisfying the required action of Condition 3.6.4.2.B. Repairs were completed, the system retested, and LCO 3.6.4.2 was met on February 11, 2011 at about 2001 hours.

On March 11, 2011, with Secondary Containment not required, the site tested V-D-61 with the actuator disconnected (event condition), V-AH-4A operating, and without ice holding the damper closed. Under these test conditions, the damper was subjected to a higher differential pressure than would be seen during Standby Gas Treatment System operations. The test demonstrated that the damper would not open under these conditions, thereby validating that the safety function of the damper was maintained throughout the event.

EVENT ANALYSIS

The event is reportable to the NRC under 10 CFR 50.73(a)(2)(v)(C and D) – Event or Condition that could have Prevented Fulfillment of a Safety Function. The site reported the event to the NRC under 10 CFR 50.72 (b)(3)(v)(C and D) on February 11, 2011.

This event is considered a Safety System Functional Failure due to entering an unplanned SCT TS LCO not met condition. However, subsequent testing and an engineering evaluation have demonstrated that the Secondary Containment safety function was maintained, as at least one of the two dampers would have remained in the closed position.

1. FACILITY NAME	2. DOCKET NUMBER	6. LER NUMBER			3. PAGE
Monticello Nuclear Generating Plant	05000 263	YEAR	SEQUENTIAL NUMBER	REV NO.	3 OF 3
		2011	- 003	- 00	

SAFETY SIGNIFICANCE

There were no nuclear, radiological or industrial safety significant consequences related to this event.

The Monticello risk assessment group reviewed the event for risk impact. The position of the dampers for Secondary Containment has no direct or indirect impact on the frequency of core damage (CDF). For the period of time the dampers were inoperable, the conservative assumption was made that all core damage events caused a large early release event. The incremental large early release probability was calculated to be 2.07E-9, well below the risk significance threshold of 1E-7. Therefore, the conclusion is that the safety significance in terms of reactor safety and radiological release to the environment from this event is considered to be very low.

CAUSE

This was caused by a combination of condensation from a steam leak from a heating coil and low outdoor ambient air temperatures, which resulted in the dampers freezing in position. The steam leak from the heating coil was caused by an incorrect installation which had been repaired on February 10, 2011.

CORRECTIVE ACTION

The following actions were taken or are planned and will be tracked in the Monticello Corrective Action Program:

- The ice was removed from the ventilation dampers and V-D-62 was closed.
- The actuator for V-D-61 was repaired.
- V-D-61 and V-D-62 were tested satisfactory for proper operation.
- V-D-61 was tested in the conditions it was found in (closed with the actuator disconnected) except there was no ice holding the damper closed. The test proved that a differential pressure would not cause the damper to open and validated the safety function of the damper was maintained throughout the event.
- The steam coil proper installation information will be entered into maintenance documents.

PREVIOUS SIMILAR EVENTS

There have been no similar events in the last three years. However, the site has had recent events related to secondary containment. On June 3, August 5, and November 4, 2010 the site had events which momentarily degraded secondary containment having to do with interlock doors. (LER 2010-002, 2010-003, and 2010-004)